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Peirce's Metaphysical Equivalent of War

William James declared a moral war, Charles Peirce a metaphysical one: "fall into the ranks then" was his battlecry,

> follow your colonel. Keep your one purpose steadily and alone in view, and you may promise yourself the attainment of your sole desire, which is to hasten the chariot wheels of redeeming love. (6.448:1893)[1]

Peirce's was a war not against war, but against the metaphysical equivalent of war, individuation. In the field of social philosophy, Peirce's enemy appeared under the alias of Darwinism, which Peirce fought with Christian Love. In the field of metaphysics, it appeared under the alias of nominalism, which Peirce fought with his special brand of pragmatic realism. But most challenging of all, the enemy appeared within Peirce's own thought under the alias of what I call Kantian conceptualism, and it took Peirce most of his career to win the battle.

My purpose is to retell the history of Peirce's inner war: how the battle lines were first drawn early in his career, how the enemy within was gradually isolated and then removed, and how what I call Peirce's Final Stage of Philosophic Thought represents the inner peace he achieved after that removal.

Like a good military historian, I examine the outcome of Peirce's war before deciding which side to defend in my analysis. And I look at field engagements only as indicators of underlying strategies and objectives.

I find the victor, in Peirce's Final Stage, to be the adoption of a metaphysical Weltanschauung, according to which: i) all philosophic inquiry is directed to the end of metaphysical science, which is to know the real world as a continuum of experience; ii) true continuity is experiential, or what I call material, continuity and escapes mathematical definition. The most telling engagements are those over the definitions of perception and the continuity of feeling. And the underlying objectives are a set of conflicting leading principles expressing Peirce's deepest habits of philosophic thought.

I adopt the notion of leading principle from Peirce's 1902 definition:

> It is of the essence of reasoning that the reasoner should proceed, and should be conscious of proceeding, according to a general habit... which he holds would either... always lead to the truth, provided the premises were true; or, consistently adhered to, would eventually approximate indefinitely to the truth...." (2.588)

To paraphrase the rest: the leading principle of the reasoning is a proposition stating the effect of this habit.

I detect four leading principles behind Peirce's inner struggle: three genuine, because ultimately victorious, principles, and one bastard one — a fifth column within the ranks of Peirce's early thinking.

I label the genuine three tychism, anancism and agapism. These are terms Peirce employs in 1891-2 to characterize three possible forms of evolutionary cosmology. But I turn them on him: to name the three most powerful tendencies in his own habit of philosophic thinking. Peirce vaguely exhibits these principles in his earliest writings, but clearly defines them — under the alias of his phaneroscopic categories — only after 1903. Here are my definitions:

1) *tychism*:

This is my label for Peirce's tendency to look for some element of "chance" in any instance of rational conduct: extended, in his objective idealism, to include extra-human purposiveness. "Chance" need not mean what some of Peirce's statements about it may lead one to think, for example, "producing infinitesimal departures from law continually" (6.59). As employed here, the notion of chance makes no reference to antecedents and, therefore, cannot be defined with respect to pre-existent law. Instead, its sole reference is to consequence and is therefore best captured in Peirce's term "Firstness." "Tychism" refers to the aboriginality present in any instance of rational conduct, according to which that instance functions as first premise for any subsequent conduct.

2) *anancism*:

This refers to Peirce's tendency to look for some element of brute force in any instance of rational conduct, or what Peirce later calls Secondness. New ideas, as Peirce writes in 1893, may be

> adopted without forseeing wither they tend, but (with) a character determined by causes either external to the mind,

> such as changed circumstances of life, or internal to the mind as logical developments of ideas already accepted. (6.307)

3) ***agapism***:

This characterizes Peirce's tendency to look for some element of what he calls love in any instance of rational conduct. This means that he expects the conduct i) to be defined by a purposiveness irreducible to either chance or brute force; and ii) to achieve such purposiveness through the resolution of its elements of chance and brute force. Peirce struggles throughout his career to define that resolution.

I label the villainous fourth principle Kantian Conceptualism. Peirce never uses this label, nor ever suggests it represents a valid principle of rational conduct. But he does make reference to it under the alias of "nominalism"; his catch-all term for a family of philosophic evils. The family may, as he suggests, have a recognizable forebear in Ockam. But the many progenitors and progeny of Ockam distinguished by Peirce's opprobrium have no greater family-resemblance than a den of thieves. Rather than search for some objective correlate of Peirce's nominal label, I find it more profitable to trace the vehemence with which he employs the term to some projected inner struggle.

Kantian Conceptualism refers to Peirce's early tendencies to refer both chance and brute force to a single element of rational conduct. This, as we will see, is his lingering — if unconscious — tendency to admit only mechanical causality and not love to the knowable world.

My chronology of Peirce's philosophic thinking measures the progression of his inner war on the battlefields of the perception and continuity of experience. It is closely related to Vincent Potter and Paul Shields' recent study of "Peirce's Definitions of Continuity"[2] — with modifications fitting the broader interests of this paper.

I. The Battles Lines: Peirce's Early Idealism and Anti-Cartesian Polemics, 1860's to early 1870's

When the mist clears over Peirce's early theories of experience, troops of each of the four leading principles can be detected. But the vagueness blunts their conflict and, instead of inner-dialectic, Peirce's writings exhibit only confused doctrine. For an example, I look at the 1868 theory of perception presented in "Some Consequences of Four Incapacities" (5.283-309).

The theory may be summarized in four statements:

(A) "Sensation is not necessarily an intuition, or first impression of sense" (5.290), but
  (1) as sign of something else, is the predicate of something, determined logically by previous cognitions ("impressions"). In this respect, if "fulfills the function of an hypothesis;"
  (2) as mere feeling, in itself, is "only the material quality of a representation," determined "only by an inexplicable, occult power."

(B) (3) There are no images, or absolutely determinate representations, in perception (5.305).
  (4) Perception entails a judgment that something exists (5.307).

There is nothing wrong with statements #3 and #4, but **#1 and #2** combine contradictory principles, demanding of sensation that it fill the functions both of predicate and index. Let me explain in terms of underlying leading principles:

a) tychism appears here in the underlying thesis that perception must contain an aboriginal element, such as the material quality of a sensation. This element would be conditioned by what Peirce calls occult properties of mind and would function in cognition as an hypothesis for future interpretation.

b) anancism appears in the thesis that perception must contain an element of brute force, such as the quantitative intensity of sense impressions. For future cognition, this element would make indexical reference to something in the outside world.

c) agapism appears in the thesis that perception must contain an element of purposiveness, which Peirce will ultimately identify with the material continuity of the percipuum (after 1903). This element should represent a resolution of the qualitative and quantitative elements.

d) Kantian conceptualism appears in the thesis that the thing which is the object of perception is also efficient cause of the perception and that, therefore, the perception functions in cognition as sign of its cause. For this thesis, sensation may be seen as predicate of that which is its efficient cause.

The latter thesis is consistent with the aesthetic of the First Critique. For it allows for only one category of perceptual object, what Kant calls

Gegenstand. But the ultimate implication of the theses of tychism and anancism is that *Gegenstand* must be divided into two objects: what Peirce later calls Dynamical Object, or efficient cause, and Immediate Object, or material sign. The agapistic function of resolving the two is fulfilled only in interpretive cognition.

In his 1868 theory, Peirce appears to recognize separate tychistic and anancistic functions, but seeks to resolve them in Kantian and not agapistic fashion. Sensation plays the role of a single perceptual object, carrying the double burden of efficient cause and material sign. The clearest indicator of this burden is Peirce's description of hypothesis. Peirce recognizes that perception must have an aboriginal element, fulfilling the function of an hypothesis. But, in statement #1, he identifies this function with that of being a sign of previous cognitions (i.e., impressions). This makes hypothesis a quantitative function of inductively summarizing pre-conscious sense-impressions. In statement #2, the material quality of sensation is thereby left without its proper, tychistic function.

The result is the vicious conceptualism both David Savan and Murray Murphey identify as the failing of Peirce's early system.[3] In fact, in reducing the functions of Dynamical and Immediate Objects to one *Gegenstand*, Kantian conceptualism justifies reducing the perceptual object either to an intentional correlate of the act of perception, or to an unknowable thing in itself. Anancism is the most underdeveloped principle in Peirce's early idealism, and Peirce seems to fear the unknown more than the window-less. So his 1868 theory adopts the subjective alternative: placing brute force in the influence of previous cognitions.

II. The Battle Rages: Peirce's Law of Mind Period, 1880's to early 1890's

Vague confusion is transformed into open struggle as Peirce begins to define more clearly the antagonistic tendencies in his thinking. Exemplified in the *Monist* articles of 1892-3, the Law of Mind period marks a stage of radical irresolution and dichotomy in Peirce's philosophic thought. He begins to write about the logical index, a fitting weapon for the destruction of conceptualism. But the weapon remains blunt. The index would burst the conceptualist bubble and grant him direct contact with the outside world. But he cannot yet see how to maintain the continuity of experience in the face of such contact. Persistent Kantian conceptualism restricts Peirce's vision to polar alternatives, and

he spends a decade pursuing antagonistic inquiries. In his "Law of Mind" he tries to develop a phenomenological definition of experiential continuity, but loses himself in vagueness. In his Cantorean studies of infinite collections, he tries to develop a mathematical definition of perfect continuity, but loses contact with his experiential models.

II-A) The Experiential Front

Peirce's Law of Mind describes experiential continuity as the instantaneous flowing together of bits of feeling, to paraphrase 6.151. And, in genuine tychistic fashion, he identifies feeling with mind. Were it guilty only of vagueness, this approach might have proved a foundation for Peirce's mature conception of material continuity. But the somewhat sharper interpretation he supplies of how feelings flow together reveals the familiar fingerprint of the villain of an earlier idealism. Mirroring the conflation of tychistic and anancistic functions in the "sensation" of 1868, the "feeling" of the Law of Mind is described as both immediacy and abstraction.

In the Law of Mind article, Peirce writes that an idea has "intrinsic quality as a feeling" (6.135); and, in "Man's Glassy Essence," that "wherever chance-spontaneity is found, there in the same proportion feeling exists" (6.265). As feeling, mind thus fills a genuine tychistic role: as aboriginal chance and material quality. Peirce would appear to be anticipating his mature description of mind as "Seme of the truth" (4.550:1906).

But from what does feeling arise? For genuine tychism, this is not a valid question, since feeling should be defined only with respect to its consequences. The question should be referred to some anancistic function. But, still victimized by Kantian conceptualism, Peirce does ask and seek to answer this question: feeling is abstraction. This brings us back to the idealism of Peirce's "On a New List of Categories" (1867), where quality, as ground, was considered an abstraction from being. And so, complementing my previous quotation from the Law of Mind, we have this one: "the affected idea is attached as a logical predicate to the affecting idea as subject" (6.142). Almost the same language in which sensation was burdened with predicative and denotative functions in 1868! And, complementing my quotation from "Man's Glassy Essence," we read that "large fortuitous departures from law" are produced in protoplasm by "previous departures from law" (6.264). Which is to suggest that chance has an efficient cause!

The significance of the logical index has obviously not yet been realized.

II-B) The Mathematical Front

At least since 1878, Peirce considered the mathematics of infinite collections an appropriate source of models for experiential continuity. He pursued this option through the Law of Mind period, first advocating Georg Cantor's First Definition of Continuity[4] (e.g., 6.121), then seeking to revise it (e.g., 4.121). But as his definitions improved in mathematical intelligibility, they also grew increasingly removed from his phenomenological conception of the continuity of experience.

The rational beauty in Cantor's approach must have appealed to Peirce: finding in a few rules of operation applied to discrete collections a possible model for what goes on when, as in the Law of Mind, feelings flow together. Given his 1868 rejection of the reality of points, it seems remarkable that in examining and even in revising Cantor's First Definition, Peirce raises no objections to its employment of discrete collections. But it is possible that, Poincare included, the mathematical tradition simply offered no sophisticated alternative. Or, perhaps Peirce sensed no other way to account for the effects of an apparently point-tipped brute force in perceptual experience. He still could not conceive of a non-denotative material sign.

Peirce did not acknowledge the futility of his Cantorean projects until after 1903. Before that, his work labored under the kind of inner contradiction I want to illustrate here. In the Law of Mind period, Peirce describes "intensity of feeling" as a physiological mode of hypothesis, where

> a number of reactions called for by one occasion get united in a general idea which is called out by the same occasion (6.146:1892).

This is equivalent to treating feeling as an "induction from qualities" (cf. 2.706:1883; 6.145:1892), precisely in the way his 1868 theory of perception treated sensation as an inductive summary of sense-impressions.

To show the consistency of this model with Peirce's Cantorean notions of continuity, one need only supply it a syllogistic form: (which I adapt from Peirce's 1883 model of hypothesis; it is basically similar to that of 1867: 2.511):

i) M is q'q"... q^n
ii) Some R is q'q"....
iii) R is probably of the type M.

Here, R represents the occasion which elicits what we are forced to call qualities of pre-conscious sense-impression q'q"..., and M represents the resultant feeling, or physiological hypothesis. Thus, whatever multitude be assigned to the series q'q"..., the predicate of premise (ii) constitutes a sampling of qualities attributed to M (i).

M must then be considered the character of a discrete collection of sense-qualities. (If it were not discrete, then the identification of the predicate of "ii" with that of "i" would require a physiological hypothesis and so on, *ad infinitum*.) And the multitude of this collection must be maximal, or of the continuum: since, for Peirce as for Kant, feeling has an "intensive continuity" (6.102). Only the Cantorean model of a compact and closed series fulfills the criteria of both maximal multitude and discreteness.

But this model denies feeling any creative function, which is precisely the tychistic role of feeling in the Law of Mind account. The first premise represents an innate disposition of mind: the "occult power" mentioned in the 1868 theory. And the sole function of the hypothesis is to select an appropriate disposition to fit a new occasion. Past cognitions determine present ones, and, to paraphrase K. T. Fann (on *Peirce's Theory of Abduction*[5]), we can't account here for the construction of any new ideas. When applied to experience, the Cantorean model complements the vicious conceptualism of the 1868 theory of perception.

III. Victory at Hand: Pragmatism Revisited and Cantor Rejected: 1903 and after

In 1903, Peirce writes that a continuum can have no points at all and delivers his Lectures on Pragmatism. That double-volley is enough to destroy his Kantian enemy-within. It will be three years, however, before he begins to realize the full consequences of his victory.

In the Lectures, Peirce redefines his doctrine of pragmatism. Perhaps disturbed at its fate in the hands of William James and others, Peirce seeks to purify the doctrine of all vestiges of what he calls nominalism and I call conceptualism. In a single phrase, the achievement of the Lectures is to destroy conceptualism by removing spontaneity and quality from the domain of anancism and isolating them in the domain of

tychism. This means that the significance of the logical index is now fully apparent. The perceptual judgment is in no way an icon of the percept, as Peirce declares repeatedly in 1902-3; what he earlier called sensation cannot be a predicate of its efficient cause. There is immediate contact with the object of perception, but the imprint of that contact is only negative, an inhibiting of possibilities and thereby a modification of mind. Mind need contain no discreta. And the Law of Mind has no need to appeal to Cantor for a model of experiential continuity.

During the years after the Law of Mind articles, Peirce continued to pursue mathematical, although non-Cantorean definitions of continuity. By 1890 he had discovered what he called the true meaning of Kant's definition of a continuum, as "that all of whose parts have parts of the same kind" (6.168). Previously, he says, he, along with Kant, had fallen into the error of treating Kant's definition as synonymous with infinite divisibility.[6] But, by 1903, he interprets it to mean that a "continuous line contains no points," or that the principle of excluded middle does not hold of these points. Yet, the interpretation remains vague and not fully independent of his earlier, Cantorean studies.

Whatever does not obey the law of excluded middle is indeterminately general, which Peirce defines within the context of his theory of signs as the character of a sign "which extends to the interpreter the privilege of carrying its determination further" (5.447). In other words, it is an abstract possibility. But it is precisely the abstractness of points which Peirce needs to deny. It is abstraction that makes the elements of a Cantorean series discrete, that makes Kant's interpretation of his own notion of continuity erroneous and that permits such thinkers as Hume and Russell to admit discrete sense data into their epistemologies.

But if a member of a continuum is not abstract, and certainly not a determinate individual, what else could it be? The only alternative within Peirce's logical repertoire is vagueness: indefinite, as opposed to indeterminate generality. Peirce writes, in 1905, that the vague is what does not obey the law of contradiction: or, within his semiotics, the character of a sign which "reserves further determination to be made in some other conceivable sign, or at least does not appoint the interpreter as its deputy in this office" (5.447). Phenomenologically, the vague corresponds, not to an abstract possibility, but to an actuality incompletely defined: such as the subject indicated in the proposition "Someone in this room is a nominalist." If every member of a continuum were vague, it might mean that the definition of each one depended upon the

definition of every other: so that no member considered separately from the whole would appear definite. All the parts of a continuum would then have parts of the same kind, since every part would contain the whole.

But Peirce does not opt for wholesale conversion to the logic of vagueness until 1906.

IV. The Conditions of Peace: The Vague Replaces the General: 1906 and after

Peirce's inner victory over Kantian conceptualism brought peace, but not without a cost. He had to send into exile not only Kant and Cantor, but also the dream of a great resolution of the realms of mathematics and experience. I would not go so far as Murphey to say that Peirce's dream of an ultimate system remained a castle in the air.[7] Rather, I feel that, in his Final Stage of Philosophic Thought, Peirce abandoned his castle.

Peirce's 1902-3 classification of the sciences isolated mathematics in a world of pure possibility, a world of hypothetic constructions. This move finally separated hypothesis from antecedent brute force and freed the world of experience to function as hypothesis-tester and not hypothesis-maker. But this means that mathematics is independent of experience. With his concomitant definition of the real as the long-run of experience, Peirce has made any science of the real beyond the reach of mathematics. He calls such science metaphysics and places all philosophy in its service. Phaneroscopy is to make representation of the possibility of experience, Normative Science of the inhibiting force of experience, and Metaphysics proper of the continuity of experience.

The significance of this classification is fully apparent only in Peirce's 1906-8 definitions of what I call material continuity ("material" to suggest predication of the world of things rather than of abstractions):

> any "thing" in the world, determined to be real, is a continuous whole, where such a whole is "one whose parts without exception whatsoever conform to one general law to which same law conform likewise all the parts of each single part" (7.535n7:1908). These parts are called material parts of some whole, W, which are: i) whatever things are other than W; ii) all of some one "internal nature" (character); iii) form a collection of objects in which no one occurs twice;

> iv) "are such that the Being of each of them together with the modes of connection between all sub-collections of them, constitute the being of W" (6.174:1906).

As a final definition of continuity, this doesn't appear to say very much. But that's Peirce's price for inner peace. The definition is a bulwark against saying too much, before the fact. In simplest terms, it states that the real has a knowable character, "the being of a continuous whole," but that the character can be known only through knowledge of the parts, and of the interconnections among the parts, of the whole. In the vocabulary of Peirce's mature logic, the generality of the real is "undistributed" (5.532ff:1905). This means it can be known neither mathematically nor inductively: neither as a distributive generality indifferent to the existence of subjects characterized by it, nor as a collective generality determined through statistical summary of the characters of existent subjects. It is known only vaguely: little by little, through the progressive resolution of aboriginal possibilities with the brute force of experience.

The object of a perceptual judgment is a vague singular: something about whose existence we are certain, but about whose definition we need ever more information. The object is therefore a material part of a greater whole, for it is clearly defined only in relation to all other parts of that whole. The whole itself is what Peirce calls the Universe: the singular object common to all perceptual judgments, for, as Peirce wrote already in 1903, "the being of a singular may consist in the being of other singulars which are its parts .... Heaven and earth are singulars (5.152).

This makes the definition of material continuity itself an abstraction, or ideal limit. Real things must have varying degrees of continuity, in so far as their parts have achieved mutual interdependence. But, for Peirce, the abstraction is a workable one. For it supplies a standard applicable to perceptual experience and, most significantly, it provides a model for human conduct complementing Peirce's pragmatic realism:

> Know the real by becoming real! That is, employ your ideas as aboriginal possibilities, hypotheses concerning the run of future experience. Expose your ideas to the widest possible universe of actual experience, testing them and building conclusions about the world only in response to such testing. Allow your ideas, in this fashion, to become material parts of a whole which is other than you, but which will mould

you into itself, if you permit it. Make love your sole purpose, which is to become one with the Other through active interaction with Him. War is the state of individuation: it manifests itself equally in aloofness or in unredeemed struggle. The abstract idea is aloof; brute force is unredeemed. The real is intelligent engagement.

This is the vision which animates Peirce's Final Stage of Philosophy and in the service of which he welds the three genuine principles of his thought into one continuous whole. But, short of eternity, or the long run of experience, continuity is achieved at a price. Peirce must sever his sciences of definition (mathematics) and of experience (metaphysics). He leaves us, today, facing what may seem like an interminable battle: between the interests of precision and of engagement.

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NOTES

1. All references to Peirce's work are to volume and paragraph number from *The Collected Papers of Charles Sanders Peirce, vols. I-VI*, eds. Hartshorne and Weiss, Cambridge: The Belknap Press of Harvard, 1931-5; *vols. VII-VIII*, ed. Burks, Cambridge: The Belknap Press of Harvard, 1958.

2. *Transactions of the Charles S. Peirce Society*, XIII, No. 1 (Winter, 1977: 20-34.

3. See David Savan, "On the Origin of Peirce's Phenomenology," *Studies in the Philosophy of Charles Sanders Peirce, First Series*, Wiener and Young, eds., Cambridge: Harvard University Press, 1952, pp. 185-194 and Murray Murphey, *The Development of Peirce's Philosophy*, Cambridge: Harvard University Press, 1961, pp. 296-313. Pertinent references are to 3.361ff: 1895; 1.372: 1890; 8.41n6: 1885.

4. In Georg Cantor, *Contributions to the Founding of the Theory of Transfinite Numbers*, P. Jourdain, trans., Illinois: Open Court, 1952.

5. The Hague: Martinus Nijhoff, 1970.

6. Peirce's reference, in 6.120 (1892) and 4.121ff (1893) is to the *Critique of Pure Reason*, A169/B211 and A659/B607.

7. Murphey, *op. cit.*, 407.